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10/798,100

03/11/2004

G. Ronald Morris

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AMSTER, ROTHSTEIN & EBENSTEIN LLP
90 PARK AVENUE
NEW YORK, NY 10016

EXAMINER

ROZANSKI, MICHAEL T

ART UNIT

PAPER NUMBER

3768

MAIL DATE

DELIVERY MODE

10/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/798,100 | Applicant(s) MORRIS ET AL. | |
| | Examiner Michael Rozanski | Art Unit 3768 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-6, 13-16, 22 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-12, 17-21, 23 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 9/7/07 have been fully considered but they are not persuasive. Applicant argues that the cited references do not disclose or suggest that a signal representative of motion of the body is generated using a wire positioned in the magnetic field. Examiner disagrees because an ECG used in both '233 and '229 is used to measure cardiac activity or the beating of the heart, which is a signal representative of motion of the body (e.g. the heart). Thus, both references disclose an apparatus for measuring motion of a portion of the body of a patient and an ECG of a patient in a magnetic field.

In addition, claims 21 and 23 have been amended to limit detection of motion to the exterior portion of the body. Further, newly added claim 25 includes the limitation wherein the output of the voltage measuring device represents the respiration of the patient. The reference Rasanen (US 5,879,308) is incorporated into the FINAL rejection below to teach measurement of respiration, which results in external motion of the body, through ECG electrodes.

Further, the claim objections of the previous rejection are withdrawn in light of amendments.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 7 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by ***Holland et al*** (US 5,2099,233).

Claims 7 and 17: Holland et al disclose an apparatus for measuring motion of a portion of the body of a patient and an ECG of a patient in a magnetic field including a first and second electrode attached to a patient, first and second ECG leads connected to first and second electrodes, respectively, one of which encloses a part of the body of the patient, and an output voltage that is measured from the ECG used to represent motion of the body of the patient (col. 3, line 55-col. 4, line 64; see figure 2).

4. Claims 7, 8, 10, 11, 17, 18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by ***Morris, Sr. et al*** (US 6,148,229).

Claims 7, 8, 10, 11, 17, 18, and 20: Morris, Sr. et al disclose a system and method for measuring motion of a portion of the body of a patient and an electrocardiogram of a patient in a magnetic field including a first and second electrode 40 attached to a patient, first and second high resistance ECG leads 50 connected to first and second electrodes, respectively, one of which encloses a part of the body of the patient, and a voltage measuring device incorporated into a Faraday shield 55 (col.

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4, line 35-col. 5, line 7). A cradle 70 is coupled around at least a part of the portion of the body of the patient coupled to one of the ECG leads (col. 4, line 53-col. 5, line 3).

Morris, Sr. et al also disclose all features including a Faraday shield 55, two RF filters 120 mounted in the shield, each having an input coupled to a respective ECG lead and an output, a differential amplifier 140 mounted in enclosure with its inputs coupled to respective output of one of the RF filters, a gradient filter 190 (i.e. averaging filter) coupled to output of differential amplifier, and a transmitter 160 having an output representative of the motion of a portion of the body (col. 4, line 53-col. 5, line 3; see figure 2).

5. Claims 21, 23, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by *Rasanen* (US 5,879,308).

Claims 21, 23, and 25: Rasanen discloses a procedure for monitoring a patient's respiration using the same measuring cables and electrodes, enclosing at least a portion of the exterior of the body, as in ECG measurement. Electrodes 1a and 1b correspond to the active electrodes in ECG measurement and electrode 2 to the neutral electrode in ECG measurement, which are connected to means for measuring the voltage and means for detecting the output representing respiration (col 4, lines 10-59; see figures 1 and 2).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Morris, Sr. et al*** in view of ***Imran*** (US 5,327,888).

Claims 9 and 19: Morris, Sr. et al substantially disclose all features of the current invention including two primary field coils 70 that function to cradle a part of the body (see figure 1), but do not disclose a cradle formed from a thin polycarbonate plastic strip. In the same field of endeavor, Imran teaches a cradle for ECG purposes comprising thin polycarbonate plastic material (col. 2, lines 14-37). It would have been obvious to one with ordinary skill in the art at the time the invention was made to have incorporated this teaching in order to have a cradle that is made of temperature resistant material.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over ***Morris, Sr. et al*** in view of ***Stocklin*** (US 5,193,108).

Claim 12: Morris, Sr. et al disclose all features including a Faraday shield 55, two RF filters 120 mounted in the shield, each having an input coupled to a respective ECG lead and an output, a differential amplifier 140 mounted in enclosure with its inputs coupled to respective output of one of the RF filters, a gradient filter 190 (i.e. averaging

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filter) coupled to output of differential amplifier, and a transmitter 160 having an output representative of the motion of a portion of the body (col. 4, line 53-col. 5, line 3; see figure 2). Morris, Sr. et al do not disclose one input of the differential amplifier coupled to the Faraday shield. In the same field of endeavor, Skocklin teaches of coupling of an input of a differential amplifier to a Faraday shield (col. 2, lines 3-13). It would have been obvious to one with ordinary skill in the art at the time the invention was made to have incorporated this teaching in order to obtain a desired input into the second input of the differential amplifier.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rozanski whose telephone number is 571-272-1648. The examiner can normally be reached on Monday - Friday, 8-4:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader can be reached on 571-272-4740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MR

MR


BRIAN L. CASLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER